TA Tactics in the 34th ID

The 34th Red Bull Division Artillery (Div Arty), Army National Guard, with its headquarters in Minnesota, faced a difficult mission during a recent Battle Command Training Program (BCTP) Warfighter exercise. The mission challenged us to relook our radar tactics. To add to the difficulty, we had less time to plan as a National Guard division and a voice-only, non-tactical fire direction system (non-TACFIRE) tactical operations center (TOC) to execute the plan. With a lot of hard work, our target acquisition (TA) experiments achieved an 88 percent overall acquisition rate.

The 34th's mission was to defend in depth against a heavy combined arms army only slightly attritted by corps and Air Force assets. The army had at least a two-to-one advantage in artillery. Our division was task organized with an additional FA brigade, a corps TA detachment and other corps assets and had to defend 80 to 100 kilometers from the battle hand-over line to our main defensive positions.

The depth of the battlefield made us position our Q-37 Firefinder radars to"see" the entire battlefield yet survive to fight the next battle. In our initial plan, the Div Arty TOC fought the deep battle, retaining control of the Q-36 radars for targeting and developing intelligence. The FA brigade TOC was the counterfire headquarters and retained the corps TA detachment. Targeting data was passed via eavesdropping on each other' s radio net. This plan proved to be unworkable in short order. The logistics of sharing data in a non-digital environment is mind-boggling.

Centralization was the key to our second plan. We centralized control of the Q-37 radars and target processing at the Div Arty TOC and passed missions, as needed, to our FA brigade. This plan had merit early when we used terrain and kill sacks in the defense. But as the battle progressed, our counterfire mission began to overwhelm the TOC while the FA brigade was underutilized.

This led to our final configuration: as the enemy approached our main defensive line, the Div Arty target processing section moved to the FA brigade TOC. This counterfire cell responded quickly to radar data from four Q-37s and passed intelligence to the Div Arty S2 via summarized reports.

Although command and control was centralized, the execution was decentralized. All radar sections, including the Q-36s, reported current statuses and locations to the target processing section so we could cross-level personnel and equipment as needed and track fuel and other supplies. Using this simple reporting system, we easily scheduled planned movements and radar coverage. (Survivability moves, position reconnaissance and maintenance were the responsibility of the radar section.)

Radar cueing schedules and zones allow the maneuver commander to prioritize the battlefield into areas and times of differing importance. We attempted to "sell" these processes as "gun sites and triggers" to our fire support agencies, using zones to "sight in" areas to safeguard or target and decentralized cueing as the "trigger" to cause the general support (GS) artillery to fire.

In several preparatory exercises, decentralized cueing and zoning driven by the maneuver plan was tried and evangelized. Varying degrees of success finally drove us to a new approach: a cueing matrix (see the figure). Using this matrix, decentralized and scheduled cueing can be mixed to support the operation. Units can manage their counterfire cueing times except when continuous coverage is necessary (for example, H-hour or crossing a linear danger area). We augmented the plan with periods of TOC-driven cueing to locate enemy artillery, especially early in the battle. The important point is that *events on the battlefield drove cueing*.

We further experimented with TA tactics by creating an MLRS/Q-37 task force to find and kill hostile artillery within a brigade sector during a counterattack. First, we placed censor zones on the friendly units on the right and left of the task force to reduce target duplication and the potential for friendly fire incidents. Next, we adjusted the common sensor boundary for the Q-36 and Q-37 radars to take advantage of the systems' different ranges and eliminate duplication of efforts.

In this experiment, we doubled the number of kills achieved previously in the same time. What this relationship loses in centralization, it more than makes up for in effects on targets.

The keys to effective TA are real-time cueing from designated agents based on battlefield events. Decentralizing radar assets makes response times faster by eliminating layers of agencies needed to fire the target. Decentralized TA is becoming even more important on the Paladin/MLRS battlefield where artillery assets are spread over a wider area.

Phases and Section Cueing	Phase I (Cross LD)	Phase II (PL Bronze)	Phase III (Objective Gold)
Section 1	Cue H-Hour for 5 Minutes	1-94 Cavalry FSO and A Troop FSO	66th Brigade FSO
Section 2	Cue H-Hour for 2 Minutes, then Move to Position M-3	1-136 Infantry FSO	1-136 Infantry FSO

Legend: FSO = Fire Support Officer LD = Line of Departure PL = Phase Line

Sample Cueing Matrix. This example of a cueing matrix allows scheduled cueing to be mixed with decentralized cueing.

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